

BRUNO D'AGOSTINO

IBLA 87-149

Decided December 19, 1988

Appeal from a decision of the Eastern States Office, Bureau of Land Management, rejecting oil and gas lease offer ES-035130.

Affirmed.

1. Oil and Gas Leases: Known Geologic Structure--Oil and Gas Leases:
Offers to Lease

BLM properly rejects a noncompetitive oil and gas lease offer for land determined to be within the known geo-logic structure of a producing oil or gas field where the offeror fails to establish by a preponderance of the evidence that BLM's determination is in error and where BLM justifiably relies on its technical experts for determination of the existence and extent of a known geologic structure.

APPEARANCES: Bruno D'Agostino, pro se; Mary Katherine Ishee, Esq., Office of the Solicitor, Washington, D.C., for the Bureau of Land Management.

OPINION BY ADMINISTRATIVE JUDGE ARNESS

Bruno D'Agostino has appealed from a decision of the Eastern States Office, Bureau of Land Management (BLM), dated September 9, 1986, rejecting his noncompetitive oil and gas lease offer ES-035130. D'Agostino was the successful drawee for parcel No. ES-107 in the Eastern States June 1985 simultaneous oil and gas drawing.

This offer was rejected by a decision stating that the Milwaukee District Office had informed the Eastern States Office on June 5, 1986, that all the lands in parcel ES-107 were within the boundaries of the Newaygo-Mecosta known geologic structure (KGS) effective December 25, 1985. Therefore, BLM determined that these lands were unavailable for noncompetitive leasing. In support of its decision, BLM cited 43 CFR 3112.5-2 which provides:

(b) If, prior to the time a lease is issued, all or part of the lands in the offer are determined to be within a known geologic structure of a producing oil or gas field, the offer shall be rejected in whole or in part as may be appropriate and the lease, if issued, shall include only those lands not within the known geologic structure of a producing oil or gas field.

BLM included a copy of the geologic report establishing this KGS with its decision. In the introduction to this report, it was explained that "[a] review of recent deep wells in Lake, Mason, Osceola, Oceana, Newaygo, Mecosta, Montclam, Kent, and Muskegon counties has revealed that the recently discovered Prairie du Chien production from the Goodwell and Norwich Fields is related to a negative magnetic anomaly."

The report states that the Newaygo-Mecosta KGS has a total acreage of approximately 363,260 acres of Federal and private lands. BLM explains that the Newaygo-Mecosta KGS includes lands within the Goodwell-Norwich and Barton KGS's in Newaygo County, but that it is not an extension or combination of the previous KGS's. Instead, the Newaygo-Mecosta KGS is based on a new producing structure defined by new drilling to the Prairie du Chien and lower formations.

Data and sources for the KGS report were supplied by BLM. The well data was obtained from the Petroleum Information Corporation (P.I.) and the Michigan State Geological Survey. All available logs were obtained for the Prairie du Chien wells. A key source of the general shape and extent of the field is the Magnetic Anomaly Map published by the Michigan Geological Survey, which was further studied and interpreted by Richard Kellogg in his doctoral thesis done at Michigan State University in Lansing. Maps of formations above the St. Peter-Prairie du Chien contact were created to see if formations higher in the section (above the Post-Knox Unconformity) also reflected the deep features suggested by the magnetic data.

Also discussed at length by BLM were various factors leading to the KGS determination including the geological environment of the Michigan basin, the stratigraphy of the region, magnetic data, significant features of the geologic history of the Mid-Michigan area, mapping parameters, well test and initial production data, and alternative data interpretations.

D'Agostino challenges the KGS determination with this appeal, alleging, inter alia, delineation of this KGS is unreasonable, erroneous, and flawed. He challenges the size of the KGS, contending that no new producing structure has been reasonably defined to the extent described in the KGS report by new drilling to these deeper formations. He asserts that the limited new drilling cannot reasonably delineate a KGS of the magnitude described in the report. Appellant charges that only three producing wells, two significant discoveries, and one confirmation development well have been established in the KGS, while a number of dry holes have been drilled (Statement of Reasons (SOR) at 2). Further, he argues that the fact that the KGS report ignored dry holes drilled in this "presumably entirely productive structure" substantiates his rationale for limiting the size of the KGS (SOR at 4).

The major flaw with the report and its delineation of the KGS is the lack of adequate well control information for so vast an area, D'Agostino contends. He argues that while the KGS report shows 180 wells were studied, in his opinion only 30 penetrated the deeper formations and are pertinent to this area. The BLM report is cited by him to show that no relevant wells have been drilled on Federal lands in the KGS, as further support for his position that a KGS this size is premature and obviously in error (SOR at 3).

Indicating there is sufficient scientific foundation for the KGS determination, BLM has responded that the Newaygo-Mecosta KGS is a large, deep-seated, hydrocarbon-bearing structure, which is associated with a basement high, and lies beneath portions of Newaygo, Mecosta, and several adjoining counties in west-central Michigan. The main production associated with the KGS at the time it was established was gas from the Ordovician Prairie du Chien Formation. The structure was defined, BLM argues, using a thorough geologic analysis of all available data, which included well data, aero-magnetics and gravitational data, previous analyses and models for the Michigan Basin, structure maps, and isopachs. Based upon an analysis of the results of wells drilled in the Newaygo-Mecosta area to the date of this appeal, BLM concludes the KGS' boundaries remain viable. It asserts D'Agostino has failed to demonstrate on the basis of old or new data that the KGS was erroneously established or that it should be revised (BLM Summarized Response to SOR, Jan. 29, 1988, at 1-3).

In a more detailed response to D'Agostino's SOR, BLM states that while, in and of itself, the existing well data was inadequate to define the limits of the trap which had been encountered by the Prairie du Chien gas wells, the KGS boundaries were not determined using well data alone. Well data was evaluated in conjunction with all available geologic data. BLM states that D'Agostino, in only considering well data, has inadequately addressed the data used to establish the KGS and has not shown error in the determination (Detailed Response to SOR, Jan. 29, 1988, at 1).

With respect to the number of wells drilled, BLM disputes D'Agostino's well count and his analysis of the significance of their location, concluding none of the wells drilled at the time of the KGS determination contra-dicts the findings of the KGS report. BLM states that eight wells had been drilled at the time the Newaygo-Mecosta KGS was established: the Sun #4 G.H. Bradley; the Jennings 1-8 Anderson; Jennings 1-8A Anderson; Jennings 1-8 Mich Con; Jennings 1-9 Mich Con; Jennings 1-9A Mich Con; Wolverine 1-29 Jansma; and the Jennings 1-35 Hudson. Only the Sun #4, drilled in 1948, was a dry hole. Moreover, that well penetrated only 80 feet into the Prairie du Chien, and did not completely test the formation (Detailed Response at 3-4). BLM observes that other dry hole information in the KGS report did not con-tradict the findings of the KGS determination (Detailed Response at 9).

Concerning D'Agostino's criticism of BLM's selection of well control data, BLM asserts that all 180 wells used in the KGS analysis were relevant thereto. BLM explains that eight Prairie du Chien tests were available for analysis within the KGS prior to its establishment (Detailed Response at 5-6). BLM used all wells drilled within the KGS study area which reached the Prairie du Chien and which were known to BLM. BLM cites the rationale from the report for selecting the wells for evaluation stating:

Of the 10,040 wells in the area under consideration in this study, about 180 of them were deep enough to encounter the Gray and White Niagaran. Of the 180 wells, about 30 of these have been drilled to the Prairie du Chien. This study is based on the data from the 180 wells mentioned above. The decision to limit the number of wells used was based on the geology of the area in

question. No additional geologic information bearing on the extent of the Prairie du Chien productive zones would have been obtained even if all 10,040 wells had been analyzed. The 180 deep wells used in this study, especially when coupled with the geophysical data is an adequate data base for this KGS. (KGS Geologic Report, page 5, lines 5 to 14).

(Detailed Response at 8).

Section 17(b) of the Mineral Leasing Act, as amended, 30 U.S.C. | 226(b) (1982), provides that public domain lands within the "known geological structure of a producing oil or gas field * * * shall be leased to the highest responsible qualified bidder by competitive bidding." A KGS, as defined by Departmental regulation, is "technically the trap in which an accumulation of oil or gas has been discovered by drilling and determined to be productive, the limits of which include all acreage that is presumptively productive." 43 CFR 3100.0-5(1). 1/ The Secretary of the Interior is authorized to determine the boundary lines of any structure or oil or gas field. 30 U.S.C. | 189 (1982).

[1] The Secretary of the Interior has delegated determination of the existence and extent of a KGS to his technical expert in the field. When that expert makes such a determination, the Secretary is entitled to rely upon its reasoned opinion. Jack J. Grynberg, 96 IBLA 316, 319 (1987); Bruce Anderson, 63 IBLA 111, 113 (1982). A determination by Departmental technical experts will ordinarily not be set aside where it is not arbitrary or capricious and is supported by competent evidence. Ralph E. Peterson, 94 IBLA 340, 342 (1986); Thunderbird Oil Corp., 91 IBLA 195, 202 (1986), aff'd sub nom. Planet Corp. v. Hodel, CV No. 86-679 HB (D.N.M. May 6, 1987).

An applicant for a noncompetitive oil and gas lease who challenges a determination by BLM that land is within the KGS of a producing oil or gas field has the burden of showing by a preponderance of the evidence that the determination is in error. Bender v. Clark, 744 F.2d 1424 (10th Cir. 1984); Carolyn J. McCutchin, 99 IBLA 29 (1987); Richard E. O'Connell, 98 IBLA 283 (1987).

Appellant's main contention is that there is inadequate well control information to delineate a KGS of this size. He finds fault with the KGS report because its data base is "second hand, incomplete and incapable of supporting the far ranging conclusions" accepted by BLM. Appellant's argument, however, falls far short of the required showing by a preponderance of the evidence that the BLM determination is in error. This Board has recently examined similar arguments concerning the size and scope of the Newaygo-Mecosta KGS and found BLM's KGS determination to be supported by a complete and well documented report. Robert E. Eckels, 104 IBLA 29 (1988).

1/ Upon passage of the Federal Onshore Oil and Gas Leasing Reform Act of 1987, P.L. 100-203, 101 Stat. 1330-259, this concept was deleted from 30 U.S.C. | 226 (1982). Pending oil and gas lease applications and offers were required to be processed and leases issued under the provisions of prior law.

It is apparent from the record that BLM made a number of assumptions in preparing its structural map of the Prairie du Chien formation. Making assumptions is necessary where data is limited. However, the Board has specifically examined this KGS at length and affirmed the BLM action, holding that this fact, by itself, does not demonstrate error in the KGS determination. Wilfred Plomis, 104 IBLA 34 (1988); Eileen Scully, 104 IBLA 42 (1988). In both of these cases we emphasized that the Board may rely on reports of the Secretary's technical experts, citing Champlin Petroleum Co., 86 IBLA 37, 40 (1985), where the Board stated "[w]here the conclusions drawn from geological data are subject to different interpretations, the Secretary is entitled to rely upon the reasoned opinion of his technical expert in the field." In the instant case, appellant has not shown that the assumptions made were erroneous. He has shown only that other conclusions are possible, such as that there may be faults within the KGS.

Furthermore, with respect to D'Agostino's charge that dry holes in the KGS show the lease should not be included in the KGS, we find that mere identification of dry holes in acreage designated as KGS does not demonstrate error in the determination. Robert E. Eckels, *supra* at 33. From our review of the record we find each of appellant's charges has been adequately addressed by BLM. Accordingly, we adhere to our ruling in recent cases concerning the Newaygo-Mecosta KGS, finding no reason to depart from the principle expressed therein.

Therefore, pursuant to the authority delegated to the Board of Land Appeals by the Secretary of the Interior, 43 CFR 4.1, the decision of the Eastern States Office is affirmed.

Franklin D. Arness
Administrative Judge

I concur:

Bruce R. Harris
Administrative Judge